(916) 654-4715

August 6, 1992

Members, Alternates, and Observers,
California Traffic Control Devices Committee

The California Traffic Control Devices Committee will meet in Monterey on Thursday, September 24, 1992. The meeting will begin at 9:00 a. m. in the Council Chambers of the Monterey City Hall at Pacific and Madison Avenue , in Monterey. As always, all interested persons are encouraged to attend.

Because parking is severely limited, you may want to consider using a motel close to the City Hall and walking.

Sincerely,

Jack M. Kletzman
Executive Secretary, CTCDC

Enclosure

AGENDA

CALIFORNIA TRAFFIC CONTROL DEVICES COMMITTEE

September 24, 1992

Monterey

ORGANIZATION

Introductions

Adoption of Minutes

AGENDA ITEMS

89-9	EMERGENCY VEHICLE APPROACHING SIGN	Continued (Folkers)
90-9	YEAR ROUND SCHOOL SIGN	Continued (Taft)
91-7	LIGHT RAIL ALTERNATE FLASHING RED SIGNAL	Continued (Taft)
92-8	ROTO-FLECTOR	Introduction (Lowden)
92-13	POLICE OR SHERIFF'S FACILITY SIGN	Continued (Lowden)
92-14	PORTABLE TRAFFIC SIGNAL	Introduction (Lowden)
92-15	HOV LANE SIGN AND MARKINGS	Introduction (Foxen)
92-16	COUNTY ROUTE NUMBERING	Introduction (Foxen)
92-17	NATURAL GAS SIGN	Introduction (Taft)
92-18	GOLF CART SYMBOL SIGN	Introduction (Folkers)
92-19	PEDESTRIAN CROSSING AHEAD SIGN	Introduction (Folkers)
92-20	FLASH LAMPS	Introduction (Foxen)

TABLED AGENDA ITEMS

90-7	BICYCLE SIGNAL HEADS	(Bass)
91-9	CYCLIST LOOP ACTIVATION MARKING	(Lowden)
92-4	TRAFFIC SIGNAL DIMMING	(Bass)
92-10	BIKEWAY MARKING	(Foxen)

89-9 EMERGENCY VEHICLE APPROACHING SIGN

Dick Folkers said that Mr. Van Hoff, representing the City of Sacramento, indicated that there was no progress on the agreement with Mr. R. C. Anderson.

ACTION: Item continued.

CTCDC MINUTES
FEBRUARY 19, 1992

91-7 LIGHT RAIL ALTERNATE FLASHING RED SIGNAL

Russ Taft asked that his sub-committee be referred to as the Light Rail Safety Sub-committee. The California P.U.C., in conjunction with the Light Rail Safety Sub-committee, has developed an accident report form to more accurately define light rail accidents. Past accident data is unclear, unless examining specific accident reports. Local light rail jurisdictions were asked to track their own accident statistics.

Using California P.U.C. accident data, the sub-committee found, where the light rail had a median right-of-way, that 52% to 63% of the accidents at controlled intersections involved illegal left turning vehicles struck by overtaking light rail. This exists for every jurisdiction. There is no similar problem with right turning vehicles. Taft noted that in addition to concern for the safety of errant motorists, trains carry as many as three hundred passengers who can be injured even in a near miss.

Recommendations to the Committee, based on light rail agency advice, are as follows:

1. The intersections where left turning actions are a problem, should employ active signing or signaling.

2. This active signing or signaling should:
   Be activated by approaching light rail vehicle.
   Be coordinated with any traffic control devices present.
   Indicate what movement is prohibited.
   Indicate why a movement is prohibited.
   Employ LED technology where possible.

The next meeting of the Light Rail Safety Sub-committee will be July 30, 1992 at the offices of the California State Automobile Association in San Francisco.

91-7 LIGHT RAIL ALTERNATE FLASHING RED SIGNAL (continued)

Gary Foxen said that motorists normally obey red arrow signals prohibiting a left turn. The fact that motorists disregard left turn signals at light rail intersections indicates something is peculiar to that type of intersection. Taft hopes data from the new report form will provide the explanation of this phenomenon.

Roger Burger said he has observed, that in some areas of Los Angeles, motorists stop for a red indication but then disregard the red indication and proceed through the intersection when they believe there is sufficient clearance to do so. When this happens traffic volumes are generally low. The L.A. / Long Beach light rail line found 70% of its accidents last year could be attributed to left turn vehicles. He suggested that the new accident form classify the traffic density.

Joe Bass believes that motorists might be misled when they see no opposing traffic and fail to notice the light rail vehicle approaching from behind. Bass suggested that data be collected to indicate the significance of these types of accidents and the establishment of warrants for implementation of traffic devices.

Joe Bass felt that gates were inappropriate because of costs and the difficulty of fitting them into existing intersections. Mike Howard agreed that gates were a problem. Motorist drive right through them and they are expensive to repair.

Russ Taft said that San Francisco had one of lowest accident rates for this particular problem. This might be due to motorist awareness, since they have had light rail for over seventy years. A length of service correlation study has not yet been started.

Joe Bass believes that audible signals could be useful. In areas not sensitive to noise, an audible alert would serve as a wake up call to inattentive motorists. Light rail has existing audible warning devices such as bells, whistles, and loud speakers. Operators are reluctant to use these devices because of the disturbance to others.

91-7 LIGHT RAIL ALTERNATE FLASHING RED SIGNAL (continued)

Hal Rosenberg suggested that poor design of the system may cause this type of accident. The fault may not be that of the motorist, who is unaware of the unusual condition. A better design might exist if light rail would have some areas of shared right of way with a degree of forgiveness built into any left turn. He said that San Diego avoided the problem by prohibiting left turns. Rosenberg was also concerned about the clarity of meaning from any symbol signal.

Harold Becker, representing Econolite, agreed that people don't always know how to interpret signals, especially the illiterate. He feels that, in order to attract the motorists attention, a flashing signal is needed and, in a multi-cultural setting, an international symbol may be required.

ACTION: Item continued.

CTCDC MINUTES
MAY 21, 1992

92-8 ROTO-FLECTOR

Joe Bass said Mr. Jay Politzar, an official with Roto-Flector, was unable to attend the meeting and requested a postponement until the Committee meets in northern California. The device is a non-energy using attention getting device.

MOTION: By Joe Bass, second by Bruce Carter to continue the item. Motion carried 8-0.

ACTION: Item continued.

CTCDC MINUTES
MAY 21, 1992

92-13 POLICE OR SHERIFF'S FACILITY SIGN

Perry Lowden presented two signs to identify police and sheriff's facilities. Local agencies have been requesting signs similar to those erected to identify the California Highway Patrol. Lowden sought the Committee's consensus on sign policy.

Mike Howard suggested that the local jurisdiction be identified. Gary Foxen noted local jurisdictions will want to erect signs on non-state roads. Lowden said the State would pay for signs installed on the State highway system. Dick Folkers suggested that the signs be referred to LOCC and CSAC. Howard pointed out that there are many different badges used by local law enforcement and that these shapes may be as generic as possible. Members of the Committee also recommended that these signs be referred to Calchiefs and Calsherriffs.

MOTION: By Dick Folkers, second by Joe Bass to circulate the signs to Calchiefs, Calsherriffs, LOCC, and CSAC for comments. Motion carried 8-0.

ACTION: Item continued.

CTCDC MINUTES
MAY 21, 1992

OFF AGENDA ITEMS

Dick Folkers informed the Committee that the City of Palm Desert has had legislation passed that allows them to experiment with golf carts on selected streets. They would use a national symbol if one exists, otherwise they will devise one for approval. Legislation takes effect January 1, 1993 and the City would like to begin experimentation as soon as possible.

CTCDC MINUTES
MAY 21, 1992

OFF AGENDA ITEMS

Joe Bass suggested that existing agenda items, which are not considered at the next meeting, be listed on the agenda for the edification of the reading public. Mr. Lee Yarborough of Daly City requested consideration of a pedestrian crossing ahead sign. He is recommending the existing pedestrian crossing sign (W54A) be modified with an arrow for this purpose.

CTCDC MINUTES
MAY 21, 1992

OFF AGENDA ITEMS

Mr. Matthew Brown demonstrated his quick taper and active taper guidance systems. The quick taper is an incidence response device that can be set up quickly and remain for a short period of time. This device is intended to replace flares. A group of four lights is placed along a taper to actively guide traffic with synchronized flashing lights. The electrically operated lights have quartz time circuitry so that they can be synchronized by a programming box using an infra red beam. Banks of lights can be linked for longer tapers by cabling the programming boxes. A pilot light remains on to eliminate any dazzling effect from the xenon gas flash and keep the taper line visible between flashes to eliminate black holes. Brown feel the advantages are better visibility, active traffic guidance, illumination not easily displaced by passing trucks, and low fire hazard.

The active taper operates on the same principal but is intended for more prolonged use such as major construction zones or night tapers. These beacons are mounted to vertical panels or other devices and come in groups of ten flashers. Banks of flashers can also be linked. Perry Lowden remembered using such a system a long time ago on route 210. Brown agreed that this was not a new concept but that federal standards preclude flashing lights for delineation because they flash at random and leave black holes. Browns device eliminates these drawbacks. Battery life lasts 130 hours.